

# IMPROVED APERTURE PLATE AND METHODS FOR ITS CONSTRUCTION AND USE

## ABSTRACT OF THE DISCLOSURE

5           A method for performing an aperture plate comprises providing a mandrel that  
is constructed of a mandrel body having a conductive surface and a plurality of non-  
conductive islands disposed on the conductive surface. The mandrel is placed within a  
solution containing a material that is to be deposited onto the mandrel. Electrical current is  
applied to the mandrel to form an aperture plate on the mandrel, with the apertures having an  
10 exit angle that is in the range from about 30° to about 60°.

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